

GWS 1-03 – Welding and Brazing Material Procurement & Control
Attachment 5, Filler Material Procurement Required Tests

Rev. 0, 8/16/04

Table 2
Schedule I – Required Tests^{a, b, c}

Product Type	Carbon Steel	Low Alloy Steel	Stainless Steel	Nickel and Ni-Alloy	Surfacing	Cast Iron	Aluminum and Al-Alloy	Copper and Cu-Alloy	Magnesium and Mg-Alloy	Titanium and Ti-Alloy	Zirconium and Zr-Alloy	Brazing and Braze Welding Filler Metals
Covered Solid and Metal Cored (Composite) Electrodes for SMAW	(A5.1) 1,2,3,4,5 ^d	(A5.5) 1,2,3,4,5 ^d	(A5.4) 1	(A5.11) 1,2,4,6	(A5.13) 1	(A5.15) 1	(A5.3) 1	(A5.6) 1,4	—	—	—	—
Bare Solid and Metal Cored (Composite) Rods and Electrodes for GTAW, PAW, GMAW, and EGV	(A5.18) (A5.26) 1,2,4 1,2,3,4	(A5.26) (A5.28) 1,2,3,4 1,2,4	(A5.9) 1	(A5.14) 1	(A5.13) 1	(A5.15) 1	(A5.10) 1,4,9 ^f	(A5.7) 1	(A5.19) 1	(A5.16) 1	(A5.24) 1	—
Bare Solid and Metal Cored (Composite) Electrodes for SAW	(A5.17) 1	(A5.23) 1	(A5.9) 1	(A5.14) 1	—	—	—	—	—	—	—	—
Flux Cored Electrodes for FCAW and EGV	(A5.20) (A5.26) 1,2,3,4 1,2,3,4	(A5.26) (A5.29) 1,2,3,4 1,2,3,4	(A5.22) 1	—	—	(A5.15) 1	—	—	—	—	—	—
Solid or Metal Cored Electrode – Flux Combinations for SAW and ESW	(A5.17) (A5.25) 1,2,3,4 1,2,3,4	(A5.23) (A5.25) 1,2,3,4 1,2,3,4	—	—	—	(A5.15) 1	—	—	—	—	—	—
Solid and Composite Rods for OFW	(A5.2) 1	(A5.2) 1	—	—	(A5.13) 1	(A5.15) 1	(A5.10) 1,9	(A5.27) 1	(A5.19) 1	—	—	—
Consumable Inserts	(A5.30) 1	(A5.30) 1	(A5.30) 1	(A5.30) 1	—	—	—	—	—	—	—	—
Bare Brazing and Braze Welding Filler Metals	—	—	—	—	—	—	—	—	—	—	—	(A5.8) 1
Vacuum Grade Brazing Fillers	—	—	—	—	—	—	—	—	—	—	—	(A5.8) 1,7
Brazing Metal Powders	—	—	—	—	—	—	—	—	—	—	—	(A5.8) 1,8

Notes:

- a. Designations in parentheses refer to the AWS filler metal specification.
b. Tests called for in this table shall be performed only when they are required by the applicable AWS specification for the particular classification involved. Tests shall be performed in the manner prescribed by the applicable specification. Testing to one current and polarity shall be adequate.
c. Test Designations are as follows:
1 — Chemical analysis
2 — Tensile
3 — Impact
4 — Soundness (x-ray)
5 — Moisture test
6 — Bend (face, side, or both)
7 — Spatter characteristics
8 — Sieve analysis
9 — Bead-on-plate weld test
d. Low hydrogen electrodes only
e. Electrodes used for SMAW
f. Test 4 — for electrodes
Test 9 — for rods